

## DRAFT PERMIT MODIFICATION

**[NOTE: The proposed modifications to the 2009 Permit are noted in bold red after the cover page.]**

### AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Clean Water Act as amended, (33 U.S.C. ' ' 1251 et seq.; the "CWA", and the Massachusetts Clean Waters Act, as amended, (M.G.L. Chap. 21, ' ' 26-53),

#### **ExxonMobil Oil Corporation**

is authorized to discharge from a facility located at

**ExxonMobil Everett Terminal  
52 Beacham Street  
Everett, MA 02149**

to receiving water named

#### **Island End River/Mystic River Watershed (MA71)**

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

**This permit was signed on September 29, 2008 and became effective on January 1, 2009 ("2009 Permit"), to the extent described in the Notice of Uncontested and Severable Conditions, dated November 20, 2008, issued by the Regional Administrator of Region 1 of the United States Environmental Protection Agency ("Notice"). The 2009 Permit superseded the prior permit issued on March 6, 2000, to the extent described in the Notice.**

This draft permit modification shall become effective on the first day of the calendar month immediately following 60 days after signature.

This permit and the authorization to discharge shall expire at midnight on **January 1, 2014**.

This permit consists of 17 pages in Part I, including effluent limitations and monitoring requirements, 25 pages in Part II, including General Conditions and Definitions, and 10 pages in Attachment A, Marine Acute Toxicity Test Procedure and Protocol.

Signed this \_\_\_ day of \_\_\_\_\_, 2009.

\_\_\_\_\_  
Stephen S. Perkins, Director  
Office of Ecosystem Protection  
Environmental Protection Agency  
Boston, MA

\_\_\_\_\_  
Glenn Haas, Director  
Division of Watershed Management  
Department of Environmental Protection  
Commonwealth of Massachusetts  
Boston, MA

# DRAFT PERMIT MODIFICATION

## PART I

### A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

#### 1. Definitions

- a. *Corrugated plate separator* refers to the 4,000 gpm separator in the ExxonMobil Everett Terminal treatment works, at the approximate location identified on Attachment \_\_\_\_.
- b. *Conventional oil water separator* refers to the flume-type separator in the ExxonMobil Everett Terminal treatment works, at the approximate location identified on Attachment \_\_\_\_.
- c. *Dry weather flow treatment system* refers to the  $\geq 280$  gpm treatment system designed to remove toxic pollutants from dry weather flows in the ExxonMobil Everett Terminal treatment works, at the approximate location identified on Attachment \_\_\_\_.
- d. *"10-year 24-hour precipitation event"* shall mean the maximum 24-hour precipitation event with a probable recurrence interval of once in 10 years. This information is available from National Oceanic & Atmospheric Administration, U.S. Department of Commerce.

2. During the period beginning from the effective date and lasting through expiration, the permittee is authorized to discharge effluent **treated by the corrugated plate separator** from **Serial Number Outfall 001 01A** to the Island End River. The discharge is comprised of **treated** storm water, groundwater, hydrostatic test water, boiler condensate, fire testing water, truck wash water and effluent pond water. Such discharge shall: 1) be limited and monitored by the permittee as specified below; and 2) not cause a violation of the State Water Quality Standards of the receiving water.

Effluent Characteristic	Units	Discharge Limitation		Monitoring Requirements <sup>(1)</sup>	
		Average Monthly	Maximum Daily	Measurement Frequency <sup>(2)</sup>	Sample Type
Flow Rate <sup>(3)</sup>	MGD	Report	Report	Continuous	Meter
Total Suspended Solids (TSS)	mg/l	30	100	1/Month	Grab
Oil and Grease (O&G)	mg/l	----	<del>5</del> <b>15</b>	1/Month	Grab
pH <sup>(5)</sup>	S.U.	----	6.5 to 8.5	1/Month	Grab
Available Cyanide <sup>(4)</sup>	µg/L	----	Report	Quarterly	Grab
<u>Metals</u>					
Total Aluminum	mg/L	----	Report	Quarterly	Grab
Total Cadmium	mg/L	----	Report	Quarterly	Grab
Total Chromium	mg/L	----	Report	Quarterly	Grab
Total Copper	mg/L	----	Report	Quarterly	Grab
Total Lead	mg/L	----	Report	Quarterly	Grab
Total Mercury	mg/L	----	Report	Quarterly	Grab
Total Nickel	mg/L	----	Report	Quarterly	Grab
Total Zinc	mg/L	----	Report	Quarterly	Grab
<u>Whole Effluent Toxicity (WET) <sup>(8,9)</sup></u>	-	-	-	-	-

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- <del>LC<sub>50</sub></del>	%	—	≥50	2/year	Grab
- <del>Hardness</del>	mg/L	—	Report	2/year	Grab
- <del>Total Solids</del>	mg/L	—	Report	2/year	Grab
- <del>Ammonia</del>	mg/L	—	Report	2/year	Grab
- <del>Calcium</del>	mg/L	—	Report	2/year	Grab
- <del>Magnesium</del>	mg/L	—	Report	2/year	Grab
- <del>Total Organic Carbon</del>	mg/L	—	Report	2/year	Grab

Effluent Characteristic	Units	Discharge Limitation		Monitoring Requirements <sup>(1)</sup>	
		Average Monthly	Maximum Daily	Measurement Frequency <sup>(2)</sup>	Sample Type
<u>Polycyclic Aromatic Hydrocarbons (PAHs)<sup>(6)</sup></u>					
Group I:					
Benzo(a)anthracene	µg/L	----	0.018	<del>1/Month</del> <b>Quarterly</b>	Grab
Benzo(a)pyrene	µg/L	----	0.018	<del>1/Month</del> <b>Quarterly</b>	Grab
Benzo(b)fluoranthene	µg/L	----	0.018	<del>1/Month</del> <b>Quarterly</b>	Grab
Benzo(k)fluoranthene	µg/L	----	0.018	<del>1/Month</del> <b>Quarterly</b>	Grab
Chrysene	µg/L	----	0.018	<del>1/Month</del> <b>Quarterly</b>	Grab
Dibenzo(a,h)anthracene	µg/L	----	0.018	<del>1/Month</del> <b>Quarterly</b>	Grab
Indeno(1,2,3-cd)pyrene	µg/L	----	0.018	<del>1/Month</del> <b>Quarterly</b>	Grab
Group II:					
Acenaphthene	µg/L	----	0.031	<del>1/Month</del> <b>Quarterly</b>	Grab
Acenaphthylene	µg/L	----	0.031	<del>1/Month</del> <b>Quarterly</b>	Grab
Anthracene	µg/L	----	0.031	<del>1/Month</del> <b>Quarterly</b>	Grab
Benzo(ghi)perylene	µg/L	----	0.031	<del>1/Month</del> <b>Quarterly</b>	Grab
Fluoranthene	µg/L	----	0.031	<del>1/Month</del> <b>Quarterly</b>	Grab
Fluorene	µg/L	----	0.031	<del>1/Month</del> <b>Quarterly</b>	Grab
Naphthalene	µg/L	----	0.031	<del>1/Month</del> <b>Quarterly</b>	Grab
Phenanthrene	µg/L	----	0.031	<del>1/Month</del> <b>Quarterly</b>	Grab
Pyrene	µg/L	----	0.031	<del>1/Month</del> <b>Quarterly</b>	Grab
<u>Volatile Organic Compounds (VOCs)</u>					
Benzene	µg/l	----	<del>5</del> <b>40</b>	<del>1/Month</del> <b>Quarterly</b>	Grab
Toluene	µg/l	----	Report	<del>1/Month</del> <b>Quarterly</b>	Grab
Ethylbenzene	µg/l	----	Report	<del>1/Month</del> <b>Quarterly</b>	Grab
Total Xylenes	µg/l	----	Report	<del>1/Month</del> <b>Quarterly</b>	Grab
<del>BTEX<sup>(7)</sup></del>	<del>µg/l</del>	—	100	<del>1/Month</del>	<del>Grab</del>
Ethanol	µg/l	----	Report	Quarterly	Grab
Methyl Tertiary-Butyl Ether (MTBE)	µg/l	----	Report	<del>1/Month</del> <b>Quarterly</b>	Grab

### Footnotes:

1. All sampling shall be representative of the effluent that is discharged through outfall ~~004~~ **01A**

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to the Island End River. All samples shall be analyzed using the analytical methods found in 40 CFR Part 136, or alternative methods approved by EPA in accordance with the procedures in 40 CFR Part 136. Xylenes can be analyzed using EPA Method 602. MTBE can be analyzed using method EPA Method 602, modified to include a heated purge, or SW846 8260B. Ethanol can be analyzed using method SW846 8015B (with distillation using method 5031).

2. Sampling frequency of 1/month is defined as the sampling of one (1) significant rain event in each calendar month. Sampling frequency of quarterly is defined as the sampling of one (1) event in each quarter. Quarters are defined as the interval of time between the months of: January through March, inclusive; April through June, inclusive; July through September, inclusive; and October through December, inclusive. **Quarterly sampling shall be performed concurrently with the monthly monitoring event.** The permittee shall submit the results to EPA and MassDEP of any additional testing done to that required herein, if it is conducted in accordance with EPA approved methods consistent with the provisions of 40 CFR ' 122.41(l)(4)(ii).
3. For Flow Rate, the permittee shall report the maximum daily flow rate of water discharged by the facility during the reporting period. The maximum daily flow rate, which is to be measured in the units of millions of gallons per day (MGD), shall be based upon the totalizer flow results or an approved equivalent flow measuring device.
4. Available cyanide shall be analyzed using a detection limit less than or equal to 2.0 µg/l.
5. See Part I.A.6., Page 11
6. See Part I.A.22, Page 12
- ~~7. BTEX shall be reported as the sum of the detectable concentrations of benzene, toluene, ethylbenzene and xylenes.~~
- ~~8. LC50 (Lethal Concentration 50 Percent) is the concentration of wastewater (effluent) causing mortality to 50 percent (%) of the test organisms. The "50 % or greater limit" is defined as a sample which is composed of 50 % or greater effluent, the remainder being dilution water. The limit is considered to be a maximum daily limit.~~
- ~~9. The permittee shall conduct 48-Hour Static Acute Whole Effluent Toxicity (WET) test on effluent samples from Outfall 001 two times a year, in March and September, using one specie, Mysid Shrimp (*Mysidopsis Bahia*) and following the protocol in Attachment A (Marine Acute Toxicity Test Procedure and Protocol dated September 1996). Toxicity test results are to be submitted within 30 days after the sampling date with the routine Discharge Monitoring Reports (DMRs). Results of wet chemistry analyses conducted on WET test samples may be submitted to meet monthly metals and hardness monitoring requirements. In that case, metals and hardness data would be submitted in the monthly discharge monitoring report and in the WET test written report.~~

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3. During the period beginning from the effective date and lasting through expiration, the permittee is authorized to discharge effluent **treated by the conventional oil water separator** from **Serial Number Outfall 001 01B** to the Island End River. The discharge is comprised of storm water, groundwater, hydrostatic test water, boiler condensate, fire testing water, truck wash water and effluent pond water. Such discharge shall: 1) be limited and monitored by the permittee as specified below; and 2) not cause a violation of the State Water Quality Standards of the receiving water.

Effluent Characteristic	Units	Discharge Limitation		Monitoring Requirements <sup>(1)</sup>	
		Average Monthly	Maximum Daily	Measurement Frequency <sup>(2)</sup>	Sample Type
Flow Rate <sup>(3)</sup>	MGD	Report	Report	Continuous	Meter
Total Suspended Solids (TSS)	mg/l	<del>30</del> <b>Report</b>	<del>100</del> <b>Report</b>	<del>1/month</del> <b>Each Discharge</b>	Grab
Oil and Grease (O&G)	mg/l	----	<del>5</del> <b>Report</b>	<del>1/month</del> <b>Each Discharge</b>	Grab
pH <sup>(5)</sup>	S.U.	----	<del>6.5 to 8.5</del> <b>Report</b>	<del>1/month</del> <b>Each Discharge</b>	Grab
Available Cyanide <sup>(4)</sup>	µg/L	----	Report	<del>quarterly</del> <b>Each Discharge</b>	Grab
<u>Metals</u>					
Total Aluminum	mg/L	----	Report	<del>quarterly</del> <b>Each Discharge</b>	Grab
Total Cadmium	mg/L	----	Report	<del>quarterly</del> <b>Each Discharge</b>	Grab
Total Chromium	mg/L	----	Report	<del>quarterly</del> <b>Each Discharge</b>	Grab
Total Copper	mg/L	----	Report	<del>quarterly</del> <b>Each Discharge</b>	Grab
Total Lead	mg/L	----	Report	<del>quarterly</del> <b>Each Discharge</b>	Grab
Total Mercury	mg/L	----	Report	<del>quarterly</del> <b>Each Discharge</b>	Grab
Total Nickel	mg/L	----	Report	<del>quarterly</del> <b>Each Discharge</b>	Grab
Total Zinc	mg/L	----	Report	<del>quarterly</del> <b>Each Discharge</b>	Grab
<u>Whole Effluent Toxicity (WET)<sup>(8,9)</sup></u>	-	-	-	-	-
- LC <sub>50</sub>	%	----	≥50	2/year	Grab
- Hardness	mg/L	----	Report	2/year	Grab
- Total Solids	mg/L	----	Report	2/year	Grab
- Ammonia	mg/L	----	Report	2/year	Grab
- Calcium	mg/L	----	Report	2/year	Grab
- Magnesium	mg/L	----	Report	2/year	Grab
- Total Organic Carbon	mg/L	----	Report	2/year	Grab

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Effluent Characteristic	Units	Discharge Limitation		Monitoring Requirements <sup>(1)</sup>	
		Average Monthly	Maximum Daily	Measurement Frequency <sup>(2)</sup>	Sampling Type
<u>Polycyclic Aromatic Hydrocarbons (PAHs)<sup>(6)</sup></u>					
Group I:					
Benzo(a)anthracene	µg/L	----	0.018 <b>Report</b>	1/month <b>Each Discharge</b>	Grab
Benzo(a)pyrene	µg/L	----	0.018 <b>Report</b>	1/month <b>Each Discharge</b>	Grab
Benzo(b)fluoranthene	µg/L	----	0.018 <b>Report</b>	1/month <b>Each Discharge</b>	Grab
Benzo(k)fluoranthene	µg/L	----	0.018 <b>Report</b>	1/month <b>Each Discharge</b>	Grab
Chrysene	µg/L	----	0.018 <b>Report</b>	1/month <b>Each Discharge</b>	Grab
Dibenzo(a,h)anthracene	µg/L	----	0.018 <b>Report</b>	1/month <b>Each Discharge</b>	Grab
Indeno(1,2,3-cd)pyrene	µg/L	----	0.018 <b>Report</b>	1/month <b>Each Discharge</b>	Grab
Group II:					
Acenaphthene	µg/L	----	0.031 <b>Report</b>	1/month <b>Each Discharge</b>	Grab
Acenaphthylene	µg/L	----	0.031 <b>Report</b>	1/month <b>Each Discharge</b>	Grab
Anthracene	µg/L	----	0.031 <b>Report</b>	1/month <b>Each Discharge</b>	Grab
Benzo(ghi)perylene	µg/L	----	0.031 <b>Report</b>	1/month <b>Each Discharge</b>	Grab
Fluoranthene	µg/L	----	0.031 <b>Report</b>	1/month <b>Each Discharge</b>	Grab
Fluorene	µg/L	----	0.031 <b>Report</b>	1/month <b>Each Discharge</b>	Grab
Naphthalene	µg/L	----	0.031 <b>Report</b>	1/month <b>Each Discharge</b>	Grab
Phenanthrene	µg/L	----	0.031 <b>Report</b>	1/month <b>Each Discharge</b>	Grab
Pyrene	µg/L	----	0.031 <b>Report</b>	1/month <b>Each Discharge</b>	Grab
<u>Volatile Organic Compounds (VOCs)</u>					
Benzene	µg/l	----	5 <b>Report</b>	1/month <b>Each Discharge</b>	Grab
Toluene	µg/l	----	Report	1/month <b>Each Discharge</b>	Grab
Ethylbenzene	µg/l	----	Report	1/month <b>Each Discharge</b>	Grab
Total Xylenes	µg/l	----	Report	1/month <b>Each Discharge</b>	Grab
BTEX <sup>(7)</sup>	µg/l	—	100 <b>Report</b>	1/Month <b>Each Discharge</b>	Grab
Ethanol	µg/l	----	Report	Quarterly <b>Each Discharge</b>	Grab
Methyl Tertiary-Butyl Ether (MTBE)	µg/l	----	70 <b>Report</b>	1/month <b>Each Discharge</b>	Grab

### Footnotes:

1. All sampling shall be representative of the effluent that is discharged through outfall 004 **01B** to the Island End River. All samples shall be analyzed using the analytical methods found in 40 CFR Part 136, or alternative methods approved by EPA in accordance with the procedures in 40 CFR Part 136. Xylenes can be analyzed using EPA Method 602. MTBE can be analyzed using method EPA Method 602, modified to include a heated purge, or SW846 8260B. Ethanol can be analyzed using method SW846 8015B (with distillation using method 5031).

**The permittee shall record the date and duration (in hours) of the storm event(s) sampled,**

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**rainfall measurements or estimates(in inches) of the storm event that generated the sampled runoff, and the end of the previous measurable (greater than 0.1 inch rainfall) storm event.**

2. ~~Sampling frequency of 1/month is defined as the sampling of one (1) significant rain event in each calendar month. Sampling frequency of quarterly is defined as the sampling of one (1) event in each quarter. Quarters are defined as the interval of time between the months of: January through March, inclusive; April through June, inclusive; July through September, inclusive; and October through December, inclusive. **Quarterly sampling shall be performed concurrently with the monthly monitoring event.** The permittee shall submit the results to EPA and MassDEP of any additional testing done to that required herein, if it is conducted in accordance with EPA approved methods consistent with the provisions of 40 CFR ' 122.41(1)(4)(ii).~~
3. For Flow Rate, the permittee shall report the maximum daily flow rate of water discharged by the facility during the reporting period. The maximum daily flow rate, which is to be measured in the units of millions of gallons per day (MGD), shall be based upon the totalizer flow results or an approved equivalent flow measuring device.
4. Available cyanide shall be analyzed using a detection limit less than or equal to 2.0 µg/l.
5. See Part I.A.6., Page 11
6. **Analytical methods used to measure PAHs shall have minimum levels no greater than the minimum levels identified in on page 12 in** ~~See Part I.A.22.~~
7. ~~BTEX shall be reported as the sum of the detectable concentrations of benzene, toluene, ethylbenzene and xylenes.~~
8. ~~LC50 (Lethal Concentration 50 Percent) is the concentration of wastewater (effluent) causing mortality to 50 percent (%) of the test organisms. The "50 % or greater limit" is defined as a sample which is composed of 50 % or greater effluent, the remainder being dilution water. The limit is considered to be a maximum daily limit.~~
9. ~~The permittee shall conduct 48 Hour Static Acute Whole Effluent Toxicity (WET) test on effluent samples from Outfall 001 two times a year, in March and September, using one specie, Mysid Shrimp (Mysidopsis Bahia) and following the protocol in Attachment A (Marine Acute Toxicity Test Procedure and Protocol dated September 1996). Toxicity test results are to be submitted within 30 days after the sampling date with the routine Discharge Monitoring Reports (DMRs). Results of wet chemistry analyses conducted on WET test samples may be submitted to meet monthly metals and hardness monitoring requirements. In that case, metals and hardness data would be submitted in the monthly discharge monitoring report and in the WET test written report.~~

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4. During the period beginning from the effective date and lasting through expiration, the permittee is authorized to discharge **effluent treated by the corrugated place separator followed by the dry weather flow treatment system** from **Serial Number Outfall 001 01C** to the Island End River. The discharge is comprised of **treated** storm water, groundwater, hydrostatic test water, boiler condensate, fire testing water, truck wash water and effluent pond water. Such discharge shall: 1) be limited and monitored by the permittee as specified below; and 2) not cause a violation of the State Water Quality Standards of the receiving water.

Effluent Characteristic	Units	Discharge Limitation		Monitoring Requirements <sup>(1)</sup>	
		Average Monthly	Maximum Daily	Measurement Frequency <sup>(2)</sup>	Sample Type
Flow Rate <sup>(3)</sup>	MGD	Report	Report	Continuous	Meter
Total Suspended Solids (TSS)	mg/l	30	100	1/Month	Grab
Oil and Grease (O&G)	mg/l	----	5	1/Month	Grab
pH <sup>(5)</sup>	S.U.	----	6.5 to 8.5	1/Month	Grab
Available Cyanide <sup>(4)</sup>	µg/L	----	Report	Quarterly	Grab
<u>Metals</u>					
Total Aluminum	mg/L	----	Report	Quarterly	Grab
Total Cadmium	mg/L	----	Report	Quarterly	Grab
Total Chromium	mg/L	----	Report	Quarterly	Grab
Total Copper	mg/L	----	Report	Quarterly	Grab
Total Lead	mg/L	----	Report	Quarterly	Grab
Total Mercury	mg/L	----	Report	Quarterly	Grab
Total Nickel	mg/L	----	Report	Quarterly	Grab
Total Zinc	mg/L	----	Report	Quarterly	Grab
<u>Whole Effluent Toxicity (WET)<sup>(8,9)</sup></u>					
LC <sub>50</sub>	%	----	>50	2/year	Grab
<del>Hardness</del>	<del>mg/L</del>	<del>----</del>	<del>Report</del>	<del>2/year</del>	<del>Grab</del>
Total Solids	mg/L	----	Report	2/year	Grab
Ammonia	mg/L	----	Report	2/year	Grab
<del>Calcium</del>	<del>mg/L</del>	<del>----</del>	<del>Report</del>	<del>2/year</del>	<del>Grab</del>
<del>Magnesium</del>	<del>mg/L</del>	<del>----</del>	<del>Report</del>	<del>2/year</del>	<del>Grab</del>
Total Organic Carbon	mg/L	----	Report	2/year	Grab



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Effluent Characteristic	Units	Discharge Limitation		Monitoring Requirements <sup>(1)</sup>	
		Average Monthly	Maximum Daily	Measurement Frequency <sup>(2)</sup>	Sample Type
<u>Polycyclic Aromatic Hydrocarbons (PAHs)<sup>(6)</sup></u>					
Group I:					
Benzo(a)anthracene	µg/L	----	0.018	1/Month	Grab
Benzo(a)pyrene	µg/L	----	0.018	1/Month	Grab
Benzo(b)fluoranthene	µg/L	----	0.018	1/Month	Grab
Benzo(k)fluoranthene	µg/L	----	0.018	1/Month	Grab
Chrysene	µg/L	----	0.018	1/Month	Grab
Dibenzo(a,h)anthracene	µg/L	----	0.018	1/Month	Grab
Indeno(1,2,3-cd)pyrene	µg/L	----	0.018	1/Month	Grab
Group II:					
Acenaphthene	µg/L	----	0.031	1/Month	Grab
Acenaphthylene	µg/L	----	0.031	1/Month	Grab
Anthracene	µg/L	----	0.031	1/Month	Grab
Benzo(ghi)perylene	µg/L	----	0.031	1/Month	Grab
Fluoranthene	µg/L	----	0.031	1/Month	Grab
Fluorene	µg/L	----	0.031	1/Month	Grab
Naphthalene	µg/L	----	0.031	1/Month	Grab
Phenanthrene	µg/L	----	0.031	1/Month	Grab
Pyrene	µg/L	----	0.031	1/Month	Grab
<u>Volatile Organic Compounds (VOCs)</u>					
Benzene	µg/l	----	5	1/Month	Grab
Toluene	µg/l	----	Report	1/Month	Grab
Ethylbenzene	µg/l	----	Report	1/Month	Grab
Total Xylenes	µg/l	----	Report	1/Month	Grab
BTEX <sup>(7)</sup>	µg/l	----	100	1/Month	Grab
Ethanol	µg/l	----	Report	Quarterly	Grab
Methyl Tertiary-Butyl Ether (MTBE)	µg/l	----	70	1/Month	Grab

### Footnotes:

1. All sampling shall be representative of the effluent that is discharged through outfall ~~004~~ **01C** to the Island End River. All samples shall be analyzed using the analytical methods found in 40 CFR Part 136, or alternative methods approved by EPA in accordance with the procedures in 40 CFR Part 136. Xylenes can be analyzed using EPA Method 602. MTBE can be analyzed using method EPA Method 602, modified to include a heated purge, or SW846 8260B. Ethanol can be analyzed using method SW846 8015B (with distillation using method 5031).
2. Sampling frequency of 1/month is defined as the sampling of one (1) significant rain event in each calendar month. Sampling frequency of quarterly is defined as the sampling of one (1)

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event in each quarter. Quarters are defined as the interval of time between the months of: January through March, inclusive; April through June, inclusive; July through September, inclusive; and October through December, inclusive. **Quarterly sampling shall be performed concurrently with the monthly monitoring event.** The permittee shall submit the results to EPA and MassDEP of any additional testing done to that required herein, if it is conducted in accordance with EPA approved methods consistent with the provisions of 40 CFR ' 122.41(l)(4)(ii).

3. For Flow Rate, the permittee shall report the maximum daily flow rate of water discharged by the facility during the reporting period. The maximum daily flow rate, which is to be measured in the units of millions of gallons per day (MGD), shall be based upon the totalizer flow results or an approved equivalent flow measuring device.
4. Available cyanide shall be analyzed using a detection limit less than or equal to 2.0 µg/l.
5. See Part I.A.6, Page 11
6. See Part I.A.22, Page 12
7. BTEX shall be reported as the sum of the detectable concentrations of benzene, toluene, ethylbenzene and xylenes.
8. LC50 (Lethal Concentration 50 Percent) is the concentration of wastewater (effluent) causing mortality to 50 percent (%) of the test organisms. ~~The "50 % or greater limit" is defined as a sample which is composed of 50 % or greater effluent, the remainder being dilution water.~~  
**Therefore, a 50% limit means that a sample of 50% effluent shall cause no more than a 50% mortality rate.** The limit is considered to be a maximum daily limit.
9. The permittee shall conduct 48-Hour Static Acute Whole Effluent Toxicity (WET) test on effluent samples from Outfall ~~004~~ **01C** two times a year, in March and September, using one specie, Mysid Shrimp (Mysidopsis Bahia) and following the protocol in Attachment A (Marine Acute Toxicity Test Procedure and Protocol dated September 1996). Toxicity test results are to be submitted within 30 days after the sampling date with the routine Discharge Monitoring Reports (DMRs). Results of wet chemistry analyses conducted on WET test samples may be submitted to meet monthly metals and hardness monitoring requirements. In that case, metals and hardness data would be submitted in the monthly discharge monitoring report and in the WET test written report.

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### Part 1.A. (Continued)

5. The discharges either individually or in combination shall not cause or contribute to a violation of State Water Quality Standards of the receiving waters.
6. The pH of the effluent shall not be less than 6.5 nor greater than 8.5 at any time unless these values are exceeded as a result of natural causes.
7. The discharge shall not cause objectionable discoloration of the receiving waters.
8. The discharge shall not contain a visible oil sheen, foam, or floating solids at any time.
9. The discharge shall not contain materials in concentrations or combinations which are hazardous or toxic to human health, aquatic life of the receiving surface waters or which would impair the uses designated by its classification.
10. There shall be no discharge of tank bottom water and/or bilge water alone or in combination with storm water discharge or other wastewater.
11. There shall be no discharge of floor wash water from the interior of the facility maintenance garage.
12. The discharge shall not impart color, taste, turbidity, toxicity, radioactivity or other properties which cause those waters to be unsuitable for the designated uses and characteristics ascribed to their use.
13. Notwithstanding specific conditions of this permit, the effluent must not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.
14. The permittee shall inspect, operate, and maintain the O/W Separator(s) at the facility to ensure that the Effluent Limitations and Conditions contained in this permit are met. The permittee shall ensure that all components of the facility's Storm Water Pollution Prevention Plan including those which specifically address the operation and maintenance of the O/W Separator(s) and other components of the storm water conveyance system are complied with.
15. Chemicals (e.g., disinfecting agents, detergents, emulsifiers, etc.) and bioremedial agents including microbes shall not be added to the collection and treatment systems without prior approval by the U. S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP).
16. There shall be no discharge of any sludge and/or bottom deposits that has been physically removed from any storage tank(s), basin(s), and/or diked area(s) to the receiving waters. Examples of storage tanks and/or basins include, but are not limited to: primary catch basins, stilling basins, oil water separators, petroleum product storage tanks, baffled storage tanks collecting spills, and tank truck loading rack sumps.

~~Overflow of storm water and infiltrated groundwater shall not be subject to the limitations of outfall 001 if the collection and treatment facilities designed, constructed, maintained and operated to treat the peak flow and total volume of storm water and groundwater which would result from a 10 year 24 hour precipitation event. The term "10 year 24 hour precipitation event" shall mean the maximum 24 hour precipitation event with a probable recurrence interval of once in 10 years. This information is available from National Oceanic & Atmospheric Administration, U.S. Department of Commerce.~~

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17. No truck washing or hydrostatic testing shall occur during a storm event or following an overflow event until the potential for overflowing the treatment system has ceased.
18. EPA may modify this permit in accordance with EPA regulations in 40 Code of Federal Regulations (CFR) ' 122.62 and ' 122.63 to incorporate more stringent effluent limitations, increase the frequency of analyses, or impose additional sampling and analytical requirements.
19. The appearance of any size sheen attributable to the discharge from this facility shall be reported immediately by the permittee to the appropriate U.S. Coast Guard Officer in accordance with Section 311 of the Clean Water Act (CWA). This requirement is in addition to any reporting requirements related to EPA or MassDEP contained in this National Pollutant Discharge Elimination System (NPDES) permit.
20. Compliance/non-compliance for Polycyclic Aromatic Hydrocarbons (PAHs) will be based on the Minimum Level (ML) of analysis. The ML is defined as the level at which the entire analytical system gives recognizable mass spectra and acceptable calibration points. This level corresponds to the lower points at which the calibration curve is determined based on the analysis of the pollutant(s) of concern in reagent water. PAH analysis shall include the following compounds and their respective MLs as identified in parenthesis for each compound. benzo(a)anthracene (<0.05 µg/L), benzo(a)pyrene (<0.05 µg/L), benzo(b)fluoranthene (<0.05 µg/L), benzo(k)fluoranthene (<0.05 µg/L), chrysene (<0.5 µg/L), dibenzo(a,h)anthracene (<0.10 µg/L), indeno(1,2,3-cd)pyrene (<0.10 µg/L), and naphthalene (5.00 µg/L), acenaphthene (<5.00 µg/L), acenaphthylene (<5.00 µg/L), anthracene (<2.0 µg/L), benzo(ghi)perylene (<0.2 µg/L), fluoranthene (<0.50 µg/L), fluorene (<0.5 µg/L), naphthalene (<5.00 µg/L), phenanthrene (<2.00 µg/L), and pyrene (<1.00 µg/L).
21. The permittee shall attach a copy of the laboratory case narrative to the respective Discharge Monitoring Report Form submitted to EPA and MassDEP for each sampling event reported. The laboratory case narrative shall include a copy of the laboratory data sheets for each analysis (identifying the test method, the analytical results, and the detection limits for each analyte) and provide a brief discussion of whether all appropriate QA/QC procedures were met and were within acceptable limits.
22. All existing manufacturing, commercial, mining and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:
  - a. That any activity has occurred or will occur which would result in the discharge, on a routine basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following Notification levels:
    - i One hundred micrograms per liter (100 µg/l);
    - ii Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
    - iii Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. ' 122.21(g)(7); or
    - iv Any other notification level established by the Director in accordance with 40C.F.R. ' 122.44(f)
  - b. That any activity has occurred or will occur which would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following Notification levels:
    - i Five hundred micrograms per liter (500 µg/L);

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- ii One milligram per liter (1 mg/L) for antimony;
  - iii Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 C.F.R. ' 122.21(g)(7).
  - iv Any other notification level established by the Director in accordance with 40C.F.R. ' 122.44(f).
- c. That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the permit application.

### 23. Wastewater Treatment System Flow

- a. **Wet and dry weather collection, storage and treatment systems shall be** designed, constructed, maintained and operated to treat the ~~peak flow and~~ total volume of storm water and groundwater which would result from a 10-year 24-hour precipitation event, **which volume shall be discharged through outfalls 01C and 01A, in order. All wet weather and dry weather discharges less than or equal to the design capacity of the dry weather treatment system [280 gpm] shall be treated through the dry weather treatment system and discharged at outfall 01C.** The flow through the ~~wastewater treatment system (also known as the treatment works), including the~~ **corrugated plate** oil water separator shall not exceed **4,000 gpm. its maximum design flow. Each discharge through outfall 01B shall be reported in the appropriate monthly DMR, indicated the estimated duration of the discharge.**
- b. The term “10-year 24 hour precipitation event” shall mean the maximum 24 hour precipitation event with a probable recurrence interval of once in 10 years. This information is available from National Oceanic & Atmospheric Administration, U.S. Department of Commerce.
- c. The Permittee shall certify the maximum design flow for the wastewater treatment system and each component within it **them**. The certification shall be signed in accordance with the requirements identified in 40 CFR §122.22. A copy of this initial certification shall be sent to EPA and MassDEP within one hundred and twenty (120) days of the effective date of the Permit.
- d. Written notification and approval by EPA and the MassDEP shall be required, should the permittee propose changes to either the storm water conveyance or treatment systems which have the potential to cause the maximum design flow rate through the ~~O/W Separator~~ **any portion of the wet and dry weather collection, storage and treatment systems** to be exceeded.

### 24. Toxics Control

- a. The permittee shall not discharge any pollutant or combination of pollutants in toxic amounts.
- b. Any toxic components of the effluent shall not result in any demonstrable harm to aquatic life or violate any state or federal water quality standard which has been or may be promulgated. Upon promulgation of any such standard, this permit may be revised or amended in accordance with such standards.

### 25. Hydrostatic Test Water Discharges

- a. The hydrostatic test water shall be monitored as described below and treated through the oil/water separator prior to being discharged through Outfall 001 to the Island End River. In addition, the flow of hydrostatic test water into the treatment system shall be controlled to prevent it from exceeding the maximum design flow rate of the treatment system.

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- b. At a minimum, four (4) representative samples shall be taken of the hydrostatic test water: one (1) grab sample of the influent test water; and three (3) serial-grab samples of the hydrostatic test water effluent. The influent grab sample shall be taken approximately midway through the fill segment of the hydrostatic test procedure. The three (3) effluent serial-grab samples shall be taken over the duration of the entire discharge segment of the hydrostatic test procedure. The first effluent serial-grab sample shall be taken during the initial phase of discharge; the second around the midpoint; and the third near the end of the discharge. The effluent serial-grab samples shall be obtained before discharge into the treatment works and/or mixing with any storm water or other non-storm water flow.

These influent and effluent samples shall be analyzed for the following parameters:

Effluent Characteristic	Units	Sample Type
Total Suspended Solids (TSS)	mg/l	Grab
Oil and Grease (O&G)	mg/l	Grab
pH <sup>(7)</sup>	S.U.	Grab
Dissolved Oxygen (DO)	mg/l	Grab
Total Residual Chlorine	mg/l	Grab
Benzene	mg/l	Grab
Toluene	mg/l	Grab
Ethylbenzene	mg/l	Grab
Total Xylenes	mg/l	Grab
Methyl tertiary-butyl ether	mg/l	Grab
<u>PAHs</u>		
Benzo(a)anthracene	µg/l	Grab
Benzo(a)pyrene	µg/l	Grab
Benzo(b)fluoranthene	µg/l	Grab
Benzo(k)fluoranthene	µg/l	Grab
Chrysene	µg/l	Grab
Dibenzo(a,h)anthracene	µg/l	Grab
Indeno(1,2,3-cd)pyrene	µg/l	Grab
Acenaphthene	µg/l	Grab
Acenaphthylene	µg/l	Grab
Anthracene	µg/l	Grab
Benzo(ghi)perylene	µg/l	Grab
Fluoranthene	µg/l	Grab
Fluorene	µg/l	Grab
Naphthalene	µg/l	Grab
Phenanthrene	µg/l	Grab
pyrene	µg/l	Grab

- c. Testing for total residual chlorine is only required when potable water or a similar source of water which is likely to contain a residual chlorine concentration is used for hydrostatic testing. Testing for MTBE is only required if the tank undergoing testing was recently (i.e., within three

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years of the proposed testing date) used to store gasoline containing MTBE.

- d. During discharge (i.e., approximately at the same time the three effluent grab samples are taken), the flow exiting the treatment system should be observed in order to prevent the inadvertent release of hydrocarbons to the receiving water(s). In the event that there is evidence of such a release (e.g., visible oil sheen and/or noticeable increase in turbidity of discharge water), the permittee shall immediately halt the discharge of hydrostatic test water and take steps to correct the problem.
- e. Any changes to these procedures must be approved by EPA and the MassDEP prior to their implementation.
- f. The permittee shall submit a letter/report to EPA, the MassDEP, and the Director of Public Works of the municipality in which the facility is located, summarizing the results of the hydrostatic test within forty-five (45) days of completion of the test. This report shall contain: the date(s) during which the hydrostatic testing occurred; the volume of hydrostatic test water discharged; a copy of the laboratory data sheets for each analyses, providing the test method, the detection limits for each analyte, and a brief discussion of whether all appropriate QA/QC procedures were met and were within acceptable limits; and a comparison of the overall test results with the effluent limitations in this permit.
- g. The U.S. Environmental Protection Agency shall reserve the right to re-open the permit, in accordance with 40 CFR §122.62(a)(2), to limit hydrostatic test water discharges in the event that sampling results indicate that such discharge has a reasonable potential to cause or contribute to a violation of Massachusetts Water Quality Standards in the Island End River.

### **B. STORM WATER POLLUTION PREVENTION PLAN**

1. The permittee shall develop, implement, and maintain a Storm Water Pollution Prevention Plan (SWPPP) designed to reduce, or prevent, the discharge of pollutants in storm water to the receiving waters identified in this permit. The SWPPP shall be a written document and consistent with the terms of this permit. The permittee shall comply with the terms of its SWPPP.
2. The SWPPP shall be completed or updated and signed by the Permittee within 90 days after the effective date of this Permit. The Permittee shall certify that the SWPPP has been completed or updated and that it meets the requirements of the permit. The certification shall be signed in accordance with the requirements identified in 40 CFR §122.22. A copy of this initial certification shall be sent to EPA and MassDEP within one hundred and twenty (120) days of the effective date of the Permit.
3. The SWPPP shall be consistent with the provisions for SWPPPs included in the most current version of the Multi-Sector General Permits for Storm Water Discharges Associated with Industrial Activities. (The current MSGP was issued October 30, 2000 – see 65 FR 64812-64815 section 4.) The SWPPP shall include best management practices (BMPs) for on-site activities that will minimize the discharge of pollutants in storm water to waters of the United States.
4. The SWPPP shall be prepared in accordance with good engineering practices, identify potential sources of pollution that may reasonably be expected to affect the quality of the storm water discharges, and describe and ensure implementation of practices which will be used to reduce the pollutants and assure compliance with this permit. Specifically, the SWPPP shall contain the elements listed below:

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- a. A pollution prevention team responsible for developing, implementing, maintaining, revising and ensuring compliance with the SWPPP.
  - b. A site description which includes a list of activities at the facility; a site map showing drainage areas and direction of storm water flows; receiving waters and outfall location; areas of the facility where industrial materials or activities are exposed to storm water including the location of industrial activities, storage, disposal, material handling; and all structural controls.
  - c. A summary of all pollutant sources which includes all areas where spills have occurred or could occur. For each source, identify the expected drainage and the corresponding pollutant.
  - d. A summary of any existing storm water discharge sampling data.
  - e. A description of all storm water controls, both structural and non-structural. BMPs must include good housekeeping measures, preventative maintenance programs, spill prevention and response procedures, runoff management practices, and proper handling of salt or materials containing salt that are used for deicing activities. The SWPPP shall describe how the BMPs are appropriate for the facility. All BMPs shall be properly maintained and be in effective operating conditions.
5. All areas of the facility where industrial materials or activities are exposed to storm water shall be inspected, at least on a quarterly basis. Inspections shall occur beginning the 1<sup>st</sup> quarter after the effective date of the permit. EPA considers quarters as follows: January to March; April to June; July to September; and October to December.
  6. The permittee shall amend and update the SWPPP within 30 days for any changes at the facility affecting the SWPPP. Changes which may affect the SWPPP include, but are not limited to, the following activities: a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to the waters of the United States; a release of a reportable quantity of pollutants as described in 40 CFR Part 302; or a determination by the permittee or EPA that the SWPPP appears to be ineffective in achieving the general objectives of controlling pollutants in storm water discharges associated with industrial activity. Any amended or new versions of the SWPPP shall be re-certified by the Permittee. Such re-certifications also shall be signed in accordance with the requirements identified in 40 CFR §122.22
  7. The permittee shall certify at least annually that the previous year's inspections and maintenance activities were conducted, results were recorded, records were maintained, and that the facility is in compliance with the SWPPP. If the facility is not in compliance with any aspect of the SWPPP, the annual certification shall state the non-compliance and the remedies which are being undertaken. Such annual certifications also shall be signed in accordance with the requirements identified in 40 CFR §122.22. A copy of this annual certification shall be sent to EPA and MassDEP on, or before, every anniversary of the effective date of the permit. The permittee shall keep a copy of the current SWPPP and all SWPPP certifications (the initial certification, re-certifications, and annual certifications) signed during the effective period of this permit at the facility and shall make them available for inspection by EPA and MassDEP.

### C. MONITORING AND REPORTING

Monitoring results obtained during the previous month shall be summarized for each month and reported on separate Discharge Monitoring Report Form(s) postmarked no later than the 15th day of



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the month following the effective date of the permit.

Signed and dated originals of these, and all other reports and evaluations required herein, shall be submitted to EPA at the following address:

EPA New England - Region 1  
Water Technical Unit (SEW)  
P.O. Box 8127  
Boston, Massachusetts 02114

In addition, a second copy of each hydrostatic testing letter/report submitted in accordance with this permit shall be sent to EPA at the following address:

EPA New England - Region 1  
OEP/Industrial Permits Branch  
1 Congress Street, Suite 1100 (CIP)  
Boston, Massachusetts 02114

Signed and dated Discharge Monitoring Report Form(s) and all other reports required by this permit shall also be submitted to the State at the following addresses:

Massachusetts Department of Environmental Protection  
Northeast Regional Office  
Bureau of Waste Prevention  
205 B Lowell Street  
Wilmington, MA 01887

and

Massachusetts Department of Environmental Protection  
Division of Watershed Management  
Surface Water Discharge Permit Program  
627 Main Street, 2nd Floor  
Worcester, Massachusetts 01608

### **D. STATE PERMIT CONDITIONS**

1. This Discharge Permit is issued jointly by the EPA and the MassDEP under Federal and State law, respectively. As such, all the terms and conditions of this permit are hereby incorporated into and constitute a discharge permit issued by the Commissioner of the MassDEP pursuant to M.G.L. Chap.21, '43.
2. Each Agency shall have the independent right to enforce the terms and conditions of this Permit. Any modification, suspension or revocation of this Permit shall be effective only with respect to the Agency taking such action, and shall not affect the validity or status of this Permit as issued by the other Agency, unless and until each Agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this Permit is declared, invalid, illegal or otherwise issued in violation of State law such permit shall remain in full force and effect under Federal law as a NPDES Permit issued by the U.S. Environmental Protection Agency. In the event this Permit is declared invalid, illegal or otherwise issued in violation of Federal law, this Permit shall remain in full force and effect under State law as a Permit issued by the Commonwealth of Massachusetts.

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